



Minnesota Pollution
Control Agency

CDI Landfill Work Group

July 14, 2008

Governmentium

Research has led to the discovery of the heaviest element yet known to science. Governmentium (Gv), has one neutron, 25 assistant neutrons, 88 deputy neutrons, and 198 assistant deputy neutrons, giving it an atomic mass of 312. These 312 particles are held together by forces called morons, which are surrounded by vast quantities of lepton-like particles called peons. Since Governmentium has no electrons, it is inert; however, it can be detected, because it impedes every action with which it comes into contact. A minute amount of Governmentium can cause a reaction that would normally take less than a second to take from four days to four years to complete. Governmentium has a normal half-life of 2-6 years; it does not decay, but instead undergoes a reorganization in which a portion of the assistant neutrons and deputy neutrons exchange places. In fact, Governmentium's mass will actually increase over time, since each reorganization will cause more morons to become neutrons, forming isodopes. This characteristic of moron promotion leads some scientists to believe that Governmentium is formed whenever morons reach a critical concentration. This hypothetical quantity is referred to as critical morass. When catalyzed with money, Governmentium becomes Administratium, an element that radiates just as much energy as Governmentium since it has half as many peons but twice as many morons.

Legislative Directives

- May 2008 Omnibus Supplemental Budget bill (2008 Minnesota Laws, Chapter 363, Article 5)
- MPCA is convening a work group to develop, evaluate, and recommend policies and legislation regarding the management of industrial solid waste and construction and demolition debris in land disposal facilities
- Report to legislature by January 15, 2009
- Rulemaking on siting for solid waste landfills (includes, but is not limited to CDI), and financial assurance will follow

Legislative Expectations on the Two Reports (From Meetings)

- 1st Report due from CDI Landfill Workgroup, Jan. 15, 2009: Should recommend to legislature whether PCA to convert current C&D Landfill Guidance document into rule, whether C&D Landfills should be lined, and whether to make permit-based risk-reduction practices at industrial landfills, into rules as well
- 2nd Report due from MPCA Jan. 15, 2010: Should provide status report on MPCA rulemaking, before rules are finalized

Roles

MPCA

- Decides membership within sectors
- Provides staffing

Work Group

- Writes its own report to the Legislature

Landfill Summary

Landfill Type	Duluth	Brainerd	Detroit Lakes	Willmar	Rochest	Metro	Total
Demolition Debris Disposal Area	16	17	27	16	19	6	101
Industrial Waste Disposal Area	7	3	5	2	1	3	21
Municipal Solid Waste Disposal Area	1	4	3	6	5	3	22
MSW Combustor Ash Disposal Area	0	1	4	0	4	1	10
Total Permitted Landfills							154
PBR Demos 7/1/2007 – 6/30/2008	1	7	1	1	4	0	14

Note: In a typical year, the MPCA receives between 20 – 40 PBR Demo Notifications

Role of Rules and Guidance

- Rules provide minimum standards for location, hydrogeologic evaluation, design, operation, monitoring, closure, post-closure care and financial assurance
- Guidance provides further clarification in regard to acceptable or best management practices for location, hydrogeologic evaluation, design, operation, monitoring, closure, post-closure care and financial assurance

Role of Rules and Guidance

- Existing rules for non-MSW Landfills are not specific
- Waste types range widely in characteristics
- No consensus on what needs to be done to further manage risks
- Use permit authority for case-by-case factors and guidance documents to reduce possible risks to the environment and public finances

Location Standards (General Requirements)

Minn. R. 7035.2555

An owner or operator may not locate a new solid waste management facility in a floodplain. An owner or operator may not establish or construct a solid waste management facility in the following areas:

- A. within a shoreland or wild and scenic river land use district governed by chapters 6105 and 6120;*
- B. within a wetland; or*
- C. within a location where emissions of air pollutants would violate the ambient air quality standards in chapters 7005, 7007, 7009, 7011, 7017, 7019, and 7028 and parts 7023.0100 to 7023.0120.*

Location Standards

(Permit-By-Rule Demo Facilities)

Minn. R. 7035.2825, subp. 2

Demolition debris land disposal facilities permitted-by-rule must not be located:

- A.** *on a site with karst features including sinkholes, disappearing streams, and caves;*
- B.** *within wetland areas;*
- C.** *within a floodplain area;*
- D.** *within a shoreland area; and*
- E.** *with a water table within five feet of the lowest fill elevation.*

Location Standards (Permitted Demo Facilities)

Minn. R. 7035.2825, subp. 7

The owner or operator of a permitted demolition debris land disposal facility must not locate the facility on a site:

- A.** *with active karst features including sinkholes, disappearing streams, and caves; or*
- B.** *where the topography, geology, or soil is inadequate for protection of ground or surface water.*

Prohibited Areas (Industrial Facilities)

Minn. R. 7035.1600

The fill and trench areas of industrial solid waste land disposal facilities are prohibited within the following areas:

- A.** *1,000 feet from the normal high water mark of a lake, pond, or flowage;*
- B.** *300 feet from a stream;*
- C.** *a regional floodplain;*
- D.** *wetlands;*
- E.** *within 1,000 feet of the nearest edge of the right-of-way of any state, federal, or interstate highway or of the boundary of a public park or of an occupied dwelling. Permission may be granted under this item, without these distance requirements, at the discretion of the commissioner, taking into consideration such factors as noise, dust, litter, and other aesthetic and environmental considerations;*
- F.** *locations considered hazardous because of the proximity of airports; and*
- G.** *an area which is unsuitable because of topography, geology, hydrology, or soils.*

Financial Requirements (General Requirements)

Minn. R. 7035.2665

Parts 7035.2685 to 7035.2805 apply to owners and operators of mixed municipal solid waste land disposal facilities and municipal solid waste combustor ash land disposal facilities.

Financial Assurance (Permitted Demo Landfills)

Minn. R. 7035.2825, subp. 13

The commissioner may require the owner or operator of a permitted demolition debris land disposal facility to obtain financial assurance for the proper operation, closure, postclosure care, and corrective actions at the facility. The commissioner's determination shall be based on the size, site hydrogeology, operating life, past and existing operational practices, and types of waste accepted at the facility.

Demolition Landfill Guidance

- Baseline for MPCA site specific decisions on:
 - *Facility classification*
 - *Location standards*
 - *Site evaluation*
 - *Acceptable Waste*
 - *Waste Screening*
 - *ISWMP*
 - *GW monitoring*
 - *Liner requirement*

Industrial Landfill Policies

- Use MSW Rules as Guidance for Design
- Follow MSW Rules for Environmental Monitoring
- Follow MSW Rule for Financial Assurance

Guidance and Policy Documents

- Demolition Landfill Guidance
<http://www.pca.state.mn.us/publications/w-sw5-04.pdf>
- Guidance for Final Cover for Demolition Debris Landfills
<http://www.pca.state.mn.us/publications/w-sw5-08.pdf>
- Guidance for Industrial Waste Evaluation Model (IWEM)
<http://www.pca.state.mn.us/publications/w-sw5-03.pdf>
- Guidance for Liner Design for Demolition Debris and Industrial Solid Waste Landfills <http://www.pca.state.mn.us/publications/w-sw5-02.pdf>
- Solid Waste Financial Assurance
<http://www.pca.state.mn.us/publications/w-sw3-25.pdf>
- Financial Assurance and Ash Landfills Owned by Regulated Industries
<http://www.pca.state.mn.us/publications/reports/solidwaste-pmd-financialassurance.pdf>

Minnesota Rule History

- 1988: New Demolition Landfill Rules and Old Sanitary Landfill Rules Renamed Industrial Landfill Rules
- Mid-1990's: Failed Demo Rulemaking Attempt
- Early 2000's: Failed Demo & Industrial Rulemaking Attempt
- December 2003: Financial Assurance Policy (Industrial Landfills)
- 2005: Demolition Landfill Guidance
- October 2005: Liner Guidance (Demo & Industrial)

Demolition Landfills	Class I	Class II	Class III
Acceptable Wastes	Acceptable C&D Waste List (See list in Acceptable Waste section.)	Acceptable C&D Waste List + Incidental nonrecyclable packaging + Demo-like industrial wastes comprised of wood, concrete, porcelain fixtures, shingles, or window glass	All C&D wastes + Most industrial wastes
Waste Screening	Stringent screening is required.	Screening is required.	Screening is required.
Industrial Solid Waste Management Plan (ISWMP) Contents	Describe screening procedures, address asbestos-containing materials (ACM) if applicable.	Describe screening procedures and identify additional C&D wastes and specific demo-like industrial wastes to be accepted; address ACM if applicable. Develop waste acceptance criteria.	Describe screening procedures and identify additional C&D wastes and specific industrial wastes to be accepted; address ACM if applicable. Develop waste acceptance criteria.
Groundwater Monitoring	See Ground Water Matrix.	Yes	Yes
Liner	No	See Liner Matrix.	Yes
Reclassification	NA	If the facility takes more than 50% industrial waste based on annual gate receipts, it should be reclassified as an industrial landfill.	

Ground Water Monitoring

- **Class I –See Matrix**

Ground Water Decision Matrix		Soil Type		
		Clay	Silt	Sand
Depth to Water Table	5 feet or more	No	Yes or justify	Yes or justify
	At least 10 feet	No	No	Yes or justify

- **Class II & III – Generally
Required**

Liners

- **Class I – Not required**
- **Class II – See Matrix**

Liner Decision Matrix		Soil Type		
		Clay	Silt	Sand
Depth to Water Table	5 feet or more	No	Run model	Yes
	At least 10 feet	No	Run model	Run model

- **Class III – Generally Required**
- **Liner Guidance is available**

Outcomes and Objectives

- Deliverables:
 - CDI Landfill Work Group Report due 1/15/09
 - MPCA Landfill Rule Report due 1/15/10
- What does success look like
 - for this meeting?
 - for the Work Group process?
- What constitutes a successful
 - CDI Landfill Work Group Report?
 - MPCA Rule Report?

Meeting Schedule and Process

- Logistics
- Tools
- Preparation
- Plans for next meeting

Thanks for Attending

See you soon.